

Claims

1. Hydrostatic piston machine with a cylinder drum (43), in which a first group of cylinder bores (53.1) and a second
5 group of cylinder bores (53.2) are made, the cylinder bores of the first group (53.1) being connectable to a first hydraulic circuit and the cylinder bores of the second group (53.2) being connectable to a second hydraulic circuit,
10 **characterised**
in that the cylinder bores of the first group (53.1) and the cylinder bores of the second group (53.2) are made in the cylinder drum (43) on a common divided circle (76).
- 15 2. Hydrostatic piston machine according to Claim 1,
characterised
in that the cylinder bores of the first group (53.1) are connectable to the first hydraulic circuit via first
connecting ducts (64.1) which open out at an end face (65)
20 of the cylinder drum (43) with a first distance (R_1) from the longitudinal axis (71) of the cylinder drum (43), and the cylinder bores of the second group (53.2) are connectable to the second hydraulic circuit via second
connecting ducts (64.2) which open out at the end face (65)
25 of the cylinder drum (43) with a different, second distance (R_2) from the longitudinal axis (71) of the cylinder drum (43).
3. Hydrostatic piston machine according to Claim 2,
30 **characterised**
in that a first kidney control port (67) connected to the first hydraulic circuit is made in a control plate (52) and

extends along a circular arc with a first radius (R_1') corresponding to the first distance (R_1) of the mouths of the first connecting ducts (64.1) from the longitudinal axis (71) of the cylinder drum (43) and

5 in that a second kidney control port (68) connected to the second hydraulic circuit is made in the control plate (52) and extends along a circular arc with a different, second radius (R_2') corresponding to the second distance (R_2) of the mouths of the second connecting ducts (64.2) from the
10 longitudinal axis (71) of the cylinder drum (43).

4. Hydrostatic piston machine according to Claim 3,
characterised

in that a third kidney control port (69) connected to the
15 first circuit is made in the control plate (52) and extends along the circular arc with the first radius (R_1'), and in that a fourth kidney control port (70) connected to the second circuit is made in the control plate (52) and extends along the circular arc with the second radius (R_2').

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5. Hydrostatic piston machine according to Claim 3 or 4,
characterised

in that the control plate (52) has a spherical protuberance (83) and bears against a corresponding spherical
25 indentation (51) of the end face (65) of the cylinder drum (43).

6. Hydrostatic piston machine according to one of Claims 1 to 5,

30 **characterised**

in that the first and second connecting ducts (64.1, 64.2) run parallel to the longitudinal axis (71) of the cylinder drum (43).

- 5 7. Hydrostatic piston machine according to one of Claims 1 to 5,

characterised

in that the first and/or the second connecting ducts (64.1, 64.2) have a radial direction component with respect to the
10 longitudinal axis (71) of the cylinder drum (43).

8. Hydrostatic piston machine according to one of Claims 1 to 5,

characterised

15 in that the connecting ducts (64.1) opening out at the end face (65) of the cylinder drum (43) with the smaller distance (R_1) from the longitudinal axis (71) of the cylinder drum (43) have a radial direction component directed in the direction of the end face (65) towards the
20 longitudinal axis (71) of the cylinder drum (43).

9. Hydrostatic piston machine according to one of Claims 1 to 8,

characterised

25 in that the number of cylinder bores (53) made in the cylinder drum (43) on the common divided circle (76) is even.

10. Hydrostatic piston machine according to Claim 9,
30 **characterised**

in that the number of cylinder bores of the first group (53.1) is identical to the number of cylinder bores of the second group (53.2).

- 5 11. Hydrostatic piston machine according to Claim 9 or 10,
characterised

in that the first group and the second group each have an odd number of cylinder bores (53.1, 53.2).

- 10 12. Hydrostatic piston machine according to one of Claims 1 to 11,

characterised

in that pistons (54) are arranged longitudinally displaceably in each of the cylinder bores of the first
15 group (53.1) and in each of the cylinder bores of the second group (53.2), and the pistons (54) are supported on a pivoting plate (57) which, in order to reverse the working direction of the piston machine (1), is pivotable in two directions starting from an orthogonal position with
20 respect to the longitudinal axis (71) of the cylinder drum (43).

Translator's notes

The following errors have been corrected in the translation
(page and line numbers refer to the German original)

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Page 3, line 31: ersdietrecken ---> erstrecken

Page 16, line 37: $D_2 \dots D_2'$ ---> $R_2 \dots R_2'$

Page 19, line 12: so wie ---> sowie

Page 28, line 13 (also new claims page, line 18):

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Steuerniere (52) ---> Steuerplate (52)

Page 28, line 22 (also new claims page 2, line 27): 64 --->

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